

RESEARCH ARTICLE

Not everything is University Admission Test: *Ranking* as a path to University Admission in Chile

No todo es Prueba de Selección Universitaria: el ranking como vía de inclusión a la universidad en Chile

Nem tudo é teste de seleção universitária: ranking como forma de inclusão na universidade no Chile

CARLOS RENÉ RODRÍGUEZ GARCÉS*  GERALDO PADILLA-FUENTES** 
DENISSE ESPINOSA-VALENZUELA 

*Professor at the Universidad del Bío-Bío, PhD in Educational Multimedia from the University of Barcelona, Spain. Director of the CIDCIE Educational Research Centre, Universidad del Bío-Bío, Chillán, Chile. ORCID: <https://orcid.org/0000-0002-9346-0780>.

** Social Worker, Bachelor of Social Work. Researcher attached to the CIDCIE Educational Research Center, Universidad del Bio-Bio, Chillán, Chile. ORCID: <https://orcid.org/0000-0003-0882-1818>.

***Teacher of Secondary Education in Spanish and Communication, Degree in Education. Researcher at the CIDCIE Research Center, Universidad del Bío-Bío, Chillán, Chile ORCID: <https://orcid.org/0000-0003-1486-7046>.

OPEN ACCESS 

DOI: <http://dx.doi.org/10.18634/sophiaj.17v.2i.1026>

Article information

Received: October 26, 2020
Revised: January 28, 2021
Accepted: February 15, 2021
Published: April 20, 2021

Keywords: Higher education, admission conditions, school segregation, University Admission Test (UAT), Grade Ranking.

Palabras clave: Enseñanza superior, condiciones de admisión, segregación escolar, Pruebas de Selección Universitaria (PSU), Ranking de Notas .

Palavras-chave: Ensino superior, seleção de alunos, segregação escolar, testes de seleção de universidades (UST), classificação de classe.

How to cite:

Rodríguez, C.R., Padilla-Fuentes, G., Espinoza-Valenzuela, D. (2021) Not everything is University Admission Test: *Ranking* as a path to University Admission in Chile. *Sophia* 17 (2), e1026

Sophia-Education, volume 17, number 2.
January/June 2021. English version

ABSTRACT

For years, the university admission system has been criticized for its strong link with social and cultural characteristics of the applicants, reproducing the segmentation that is evident in the school environment. To correct these biases, in 2013 the Grade Ranking was incorporated as a weighting factor, valuing components of school career and educational context. The objective of this article is to describe the impacts that the Grade Ranking has had on the 2018 admission process, in terms of equal opportunities and group inclusion. With a quantitative methodology, this article uses official databases to perform a statistical analysis of the 2018 admission results, constructing indexes and outlining trends. The results highlight the positive impact that the Ranking has had on weighted scores and selection rates, in addition to the compensation it makes to historically relegated groups by valuing the effort deployed in adverse contexts. The conclusions argue that, although the Ranking is an efficient mechanism to promote greater equity in university admission processes, it is not capable of reversing the inequality and structural segmentation of the Chilean educational system.

Copyright 2021 Universidad La Gran Colombia



Conflict of interest:

The authors declare that they have no conflict of interest.

Author correspondence:

carlosro@ubiobio.cl
gpadilla@ubiobio.cl
daespinosa@ubiobio.cl

RESUMO

Há anos o sistema seletivo universitário vem enfrentando críticas por sua intensa vinculação com as características sociais e culturais dos candidatos, reproduzindo a segmentação evidenciada pelo espaço escolar. To correct esses vieses, in 2013 or Ranking of notes foi incorporated as a weighting fator, endorsing components of school trajectory and educational context. O objetivo deste artigo é descrever os impactos que o Ranking de notas teve no processo seletivo de 2018, em termos de igualdade de oportunidades e inclusão de turmas. With quantitative methodology, this article uses official data bases to perform a statistical analysis of the admission results of 2018, constructing indices and outlining trends. The results show a positive impact that Ranking tem tido nas pontuações ponderadas e nas taxas de seleção, além da compensation that provides groups historically downgraded ao avaliar or effort made in adverse contexts. As conclusões apontam que, embora o Ranking seja um mecanismo eficiente de direccionamento de maior equidade nos processos seletivos universitários, não é capacidade de reverter a desigualdade e a segmentação estrutural do sistema educacional chileno.

Introduction

Demand for access to higher education in Chile has been a rising phenomenon since the 1990s. The increase in their value and social prestige, mainly in the most vulnerable socio-economic sectors, came hand in hand with the massification of their image as a promoter of social mobility and a way to achieve personal and family expectations. Democratization of access to the education system at its three levels is a fact, although we are still far from achieving equity, transparency and fairness in its operation. The national education system, even with its adjustments to improve inclusion and ensure quality, has not been exempt from reproducing the segmented social conditions of the Chilean population.

Throughout the educational path, students and their families can choose where they want to study or to which career they want to enroll; however, the range of options grows or reduces according to the economic, social and cultural resources available at home. Even though we may consider that currently, access to higher education is a further step in personal growth, what to study, where to study and under what conditions, are intimately related to class prerogatives. This has been abundantly evidenced by researchers such as Chiroleu (2009), Madero and Madero (2012), Bellei (2013), Rodríguez and Padilla (2016), González and Dupriez (2017).

The University Admission System in Chile

Higher education institutions (HEIs), willing to meet the demand in a context of commodified education, opened offices, programs and facilities capable of housing the growing mass of new applicants. However, the way in which the Chilean Single Admission System (SAS) operated hindered admission for all types of students. More specifically, the University Admission Tests (UAT) constituted an insurmountable barrier for those who had developed their school career in low and/or medium educational quality establishments (Murillo and Román, 2011).

Since its first implementation in 2004, UATs have accumulated criticism, both technically and socially. Regarding its methodological rigor, some researchers pointed out that the lack of transparency in its preparation, the deficit of external monitoring and the lack of criteria to homogenize the curriculum made them distrustful of its results (Koljatic and Silva, 2012). At the social and educational level, the lack of use of schooling as a weighting factor and its high correlation with attributes of the family's cultural capital reinforced the perception of injustice and inequity among the population (Brunner, 2010).

Since the SAS is common to a broad group of HEIs, gathered under the Council of Rectors of Chilean Universities (CRUCH), the selection is a shared event. As in most contexts where selection mechanisms are applied with the use of standardized tests, segmentation and segregation obscure admission processes, causing dissatisfaction both among those who are excluded and among those who advocate the necessary mixturation of these spaces (Zwick, 2012). Although the SAS also considers a dimension that weighs attributes of school career, such as high school grades (NEM, for its Spanish acronym), there are recurrent conflicts to determine their predictive validity at the time of higher education (Catalán and Santelices, 2014), as well as criticisms for the overestimation it assigns to standardized tests.

The use of UATs would be based on their predictive capacity to measure the cognitive skills and curricular use that applicants have, in order to select those who are adequately prepared (DEMRE, 2015). However, several research findings have shown that beyond identifying academic potential, these standardized tests extend class attributes carried forward from the school system (Faúndez, et al., 2017). Not only do they link intensively with socio-economic characteristics of families, thus increasing the differences between groups, but are also made on the basis of a poorly validated assumption: all educational establishments pass through the national curriculum with equality. In reality, educational opportunities were linked to the availability of institutional, pedagogical and economic resources (Brunner, 2010; Koljatic and Silva, 2012; Madero and Madero, 2012; Unesco, 2013; Rodríguez and Castillo, 2015).

Schools in Chile are characterized by high class homogeneity in their composition, little contact between groups and notorious differences at the general level, in such a way that an education is outlined for vulnerable population, mainly public, and another for privileged sectors, commanded by private

establishments (Valenzuela, Bellei and Rios, 2014; Bellei, 2018). Segmentation and exclusion that is replicated in higher education groups.

Inclusion of the Grade Ranking

Due to the unequal educational conditions of the system, school performance cannot be assessed under a common metric. The inconveniences that some sectors manifest to move through the national curriculum, added to the extension of functions from the pedagogical to personal-family care, causes difficulties to successfully perform the UAT. Pedagogical time is considerably reduced, which added to external problems of the school or community, significantly weighs on the impact that teaching can have on students.

Due to the above, it was necessary to reduce selection biases by incorporating into the measurement those attributes of the place where the learning is carried out. Although high school grades (NEM) accompanied these tests for many years, they were insufficient to reflect the skills and competencies that students had to cope with their trajectories, especially in contexts of vulnerability.

Considering the above, as of 2013 the CRUCH includes the Grade Ranking as a weighting factor of the SAS.

Ranking is understood as the relative position of the student's grade point average at the end of his or her school career, taking as a reference up to three previous generations, in order to avoid the proliferation of competitive logics and grade inflation (CRUCH, 2012; Larroucau, Ríos and Mizala, 2013). Outstanding performance is particularly relevant among vulnerable students, as it would be an expression of an educational achievement that struggles to overcome the shortcomings of the school, family and territorial context (Gil, Paredes and Sanchez, 2013).

The incorporation of the Grade Ranking makes standardized tests lose hegemony, improving the opportunities for access to selective higher education among those who do not manage to endorse a good scholastic trajectory in their UAT results. Contrary to the idea that including this type of applicants puts the internal efficiency of the university at risk, the Ranking would promote the academic excellence of HEIs, since groups with a good academic trajectory would have the attributes required for success in university life, even without having reflected it in the UATs (SUA, 2014; Segovia and Manzi, 2018).

However, it should be noted that the heterogenization of the enrolment profile would require the development of preparatory proposals for early pedagogical intervention by HEIs, in order to move towards true inclusion. This is because the highest dropout and failure rates are evident in the first years and with greater intensity among students with lower cultural and educational capital (Sies, 2016; Faúndez, et al., 2017). The inclusion provided by the Ranking contributes to the equity of a criticized admission system, which should fulfill its functions without gender bias, socioeconomic characteristics and/or family members of the applicants (Larrocau, 2014; Grau, 2015).

Several years after the incorporation of the Grade Ranking, there is still debate around its value as an indicator of success in university life. In this sense, this article seeks to provide evidence for the analysis of the impact that the Grade Ranking has had on the university admission processes in Chile, discussion still not closed. In particular, making use of the SAS databases for the years 2012 and 2018, it is interesting to know who has benefited most from the restructuring of the SAS, how the differences behave among the weighted scores, what types of applicants emerge when comparing the Pre and Post Ranking scenarios, where the highest inclusion rates are located, among others. Expone evidencias sobre el supuesto que la incorporación del Ranking ha mejorado la mixturización y equidad social, haciendo de la educación superior un espacio más inclusivo.

Materials and Methods

Design

This work occupies a series of indicators and indices to describe the behavior of the Grade Ranking in the SAS of the year 2018, establishing comparisons with the Pre Ranking scenario of the year 2012. It therefore corresponds to a quantitative design that, by means of a statistical analysis to official databases, outlines the attributes and trends of demand in university admission processes.

Instrument

Official databases published by the Department of Evaluation, Measurement and Educational Registry (DEMRE) of the University of Chile, the agency in charge of the design, validation and application of the PSU standardized tests, are used. The databases are divided according to the stages of the SAS, namely, *Socioeconomic Background, Registration, Application and Results*. The four files were compacted, bringing together the different variables of interest in the same repository.

The information to characterize the educational establishments was extracted from the databases that the Ministry of Education of Chile publishes as part of the educational quality measurement processes, better known as SIMCE.

The data pairing was carried out having as a single record, or common denominator, the student identifier (MRUN), the career code of the offered program (COD_CAR) and the unique role of the secondary school (RBD).

Sample

In general terms, the sample consisted of 306,376 students, corresponding to all those enrolled in the 2018 admission process. This conglomerate was segmented according to the different research objectives and phases of the admission process: Applicants (N= 265,126), Selected (N= 120,762) and Enrolled (N= 101,749).

In addition, to carry out the comparative analysis between the Pre and Post Ranking scenarios, the "valid candidate" analysis unit was established, referring to the students who, having completed the UAT in 2018, applied for a career that existed in 2012 (N= 119,964), which allowed contrasting their selection results.

The sample of HEIs corresponds to those attached to the SAS, both public and private institutions, which are also part of or linked to the CRUCH. This selective offer accepts and subscribes to the standard conditions of the SAS, so the UAT results only vary due to the weights they assign to each component.

Procedure

Data processing began with the unification of the database in a single repository with the variables of interest according to allocation codes (MRUN, RBD and COD_CAR). The weighted scores in 2018 were used to collect in a single indicator the relative weights assigned to the school path components (NEM and Ranking) and the scores on the UAT battery (Mathematics, Language and Science or History Elective).

At the same time, in order to outline the Pre-Ranking and Post Ranking comparative scenario, the weighted scores were structured according to two criteria:

- Gross hypothetical weights: typical valuations or observed trends that the educational offer available in 2012 and 2018 granted to the components of school trajectory and UAT battery. In order to avoid the loss of information, this calculation was carried out on the generality of those who performed the UAT and considered the Pre-Ranking weights (NEM= 20%, Mathematics= 40%, Language= 30%, Optional Science or History= 10%) and Post Ranking (NEM= 10%, Ranking= 40% Mathematics= 20%, Language= 20%, Optional Science or History= 10%).
- Adjusted theoretical weights: refers to the calculation of weighted scores within the set of choices made by the student in 2018, provided that these have been offered in 2012 (valid applicant). Weighting that being limited to an existing program corrected the overestimation of a gross hypothetical weighting.

The search for consistency at the educational offer level between 2018 and 2012 in the set of elections involved working with a cut-off sample of 119,964 "valid applicants".

The contributions of the Ranking were measured through the comparison of weighted scores and selection results between both scenarios, based on the following indicators:

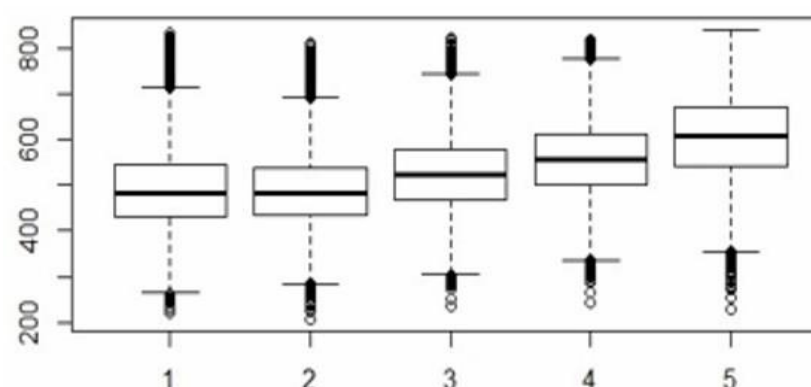
- **Ranking Impact:** Quotient that represents the number of applicants who earn with the incorporation of the Ranking due to those who lose.
- **Net inclusion:** Refers to the proportion of applicants actually selected under the conditions of admission of the Ranking within the total of valid applicants (large total). That is, this ratio excludes those who are selected regardless of the model used, those who are never selected in any model, and those who lose with the current model.
- **Relative variation:** Proportion resulting from the comparison of marginal totals among those who were selected in 2018 and 2012.

Results

Figures 1 and 2 plot the distribution of the Pre- and Post-Ranking scores, while Figure 3 shows the score differential between the two scenarios. Estimates are made with the total of *Enrolled* in the SAS, calculating their respective scores on the basis of standard hypothetical weights.

Figures 1 and 2 report the differential levels of achievement achieved in the selection tests according to type of establishments. In both, it is observed that weighted scores improve due to the type of establishment; free schools, whether public or subsidized private, obtain lower weighted scores than those paid, although these differences become less conspicuous once the Ranking is in force.

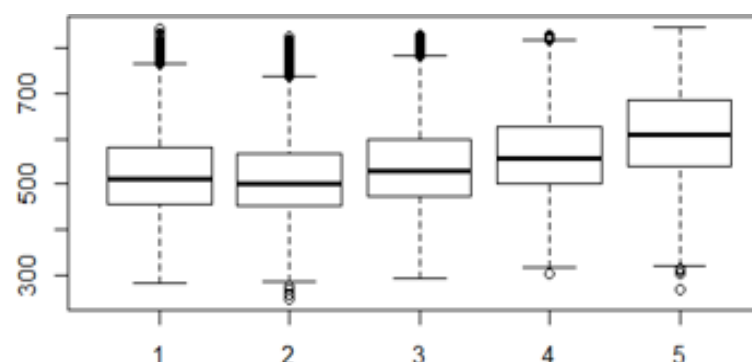
Figure 1. Distribution of Pre-Ranking scores by type of school



Note: 1= Public schools; 2= Free private subsidized schools; 3= Low co-payment private subsidized schools; 4= Moderate and high co-payment private subsidized schools; 5= Paid private schools.

Source: Own elaboration with DEMRE data (2018)

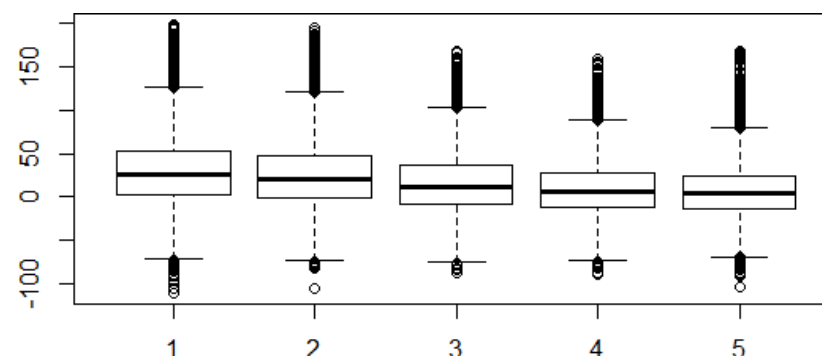
Figure 2. Distribution of Post Ranking scores by type of school



Note: 1= Public schools; 2= Free private subsidized schools; 3= Low co-payment private subsidized schools; 4= Moderate and high co-payment private subsidized schools; 5= Paid private schools.

Source: Own elaboration with DEMRE data (2018)

Figure 3. Distribution of the Post and Pre-Ranking score differential according to type of school



Note: 1= Public schools; 2= Free private subsidized schools; 3= Low co-payment private subsidized schools; 4= Moderate and high co-payment private subsidized schools; 5= Paid private schools.

Source: Own elaboration with DEMRE data (2018)

The application of the Ranking is configured as a beneficial inclusion policy for the vast majority of students (figure 3). 70% get positive deltas when compared to the old scenario; however, the reported gains are even more relevant among those who come from free and public schools. At the interquartile range level, which comprises the intermediate 50% of the distribution, greater dispersion is observed in the scores of these schools, while the individuals paid show more concentrated scores in this indicator. This figure also shows that 57.2% of paid private school applicants are benefited by the inclusion of the Ranking of grades, a figure that amounts to 77.9% in the case of public establishments, observing in the latter a greater presence of anomalous values in the distribution, an expression of the significant improvement that these applicants obtain due to the incorporation of the Ranking. Analyzed the descriptors of the distribution of Pre and Post Ranking Scores (Table 1), more limited ranges are observed, higher rates of asymmetry and kurtosis, expression of a positive bias and presence of anomalous values in the Post Ranking context. The averages are higher (+20.8 points), also recording a higher proportion of applicants with scores over 500 (+6.1 percentage points) and 600 points (+5.4 percentage points).

Table 1. Description of UAT scores (N= 256,172)

Attributes	Pre-Ranking			Post Ranking		
	x	> 500	>600	x	> 500	>600
Home Educational Capital						
- Up to 8 years	475,3	19,1	4,3	509,6	28,3	9,1
- Between 9 and 12 years	500	40,7	9,8	523,5	48,3	16,6
- More than 12 years	562,8	69	32,5	574,7	70,5	36
Gender						
- Male	518,6	44,8	16	531,7	47,8	19
- Female	515,8	45,3	15	543,4	54,3	22,5
Establishment unit						
- Public	492,8	34,3	9,3	522,6	45	16,1
- Free PS	489,4	34,4	6,8	514,7	42,7	13,6
- PS co-payment minus \$50K	524,3	54,1	15,5	539,7	56,7	21,8
- PS co-payment plus \$50K	556,9	68,8	27	565,6	68,3	30,2
- Private Paid	602,9	77,3	47,8	609,4	77,1	47,8
Descriptors						
Skewness		0,365			0,447	
Kurtosis		-0,248			-0,341	
Mean (SD)		517,1 (89,2)			537,9 (92,2)	
Min - Max		207,80 - 838,80			249,60 - 844,40	
>500 points (%)		45,1			51,2	
>600 points (%)		15,5			20,9	

Note: PS= Subsidized Individual; K= 1,000; Pre and Post Ranking scores are calculated based on hypothetical weights exhibited by a standard career in 2012 and 2018 respectively. Source: Own elaboration with DEMRE data (2018)

Table 1 provides a description of the Pre and Post Ranking scores based on a set of attributes or factors that educational theory and research consider when examining the differential levels of achievement and scores obtained in standardized tests. Regardless of its baseline characteristic, the policy of including the Ranking as a weighting factor improves the application scores to the university educational offer.

Of the factors analyzed, the most prevalent are the type of establishment and educational capital of the home. The Ranking is more favorable to public and private schools subsidized free of charge. The average scores improve between 29.8 and 25.3 points respectively, also recording a higher proportion of students with scores over 600 points. Of particular relevance here is the behavior of public schools, where before the Ranking only 9.3% of students were above the 600-point barrier, a proportion that increases by 73.1% with the application of the Ranking (16.1%).

Regardless of the context analyzed, the scores and levels of achievement are directly related to the educational capital of the household; as the years of schooling of the father or mother increase, so does the performance achieved in the UAT. However, in the Post Ranking scenario, there is a reduction in the gaps of around 22 points between the categories of lower and higher educational capital, which in relative terms represents an attenuation of the order of 25.6%. Likewise, for the year 2018, 28.3% of applicants with low educational level at home cross the threshold of 500 points, a situation that represents an increase of 9.2 percentage points, and although the proportion of the contingent that exceeds 600 points (9.1%) is always more limited when compared to applicants with higher educational capital (36.0%), the improvement observed Post Ranking reaches a notorious 53%.

Regarding gender, the assessment of the school trajectory favors women more (+11.7 points), reversing the situation observed Pre-Ranking, where the deltas benefited men (+2.8 points). The average scores of women are not only higher, but also a greater proportion of them are above the 600-point barrier; in fact, 1 in 5 applicants exceed this threshold (22.5%).

Table 2 shows the different types of applicants that emerge on the occasion of the Ranking of Notes weighting. Regarding the total number of applicants valid for both processes (N= 119,964) we find: the *Permanent* (50.3%), those that the applied model does not alter their admission; the *Marginalized* (22%) represent students historically excluded from selective higher education; the *Disadvantaged* (5.4%), those applicants who, being excluded in 2018, would have been selected under the previous weighting scheme; and, finally, the *Included* (22.3%), expression of the contribution of the Ranking to mixturization and alleged equality of educational opportunities.

Table 2. Typologies of applicants according to variation in the results of admission processes 2018 – 2012 (119,964)

	Not selected 2018 (Lose)	Selected 2018 (Win)
No select ed 2012 (Lose)	Marginalized 22	Included 22,3
Selected 2012 (Gain)	Disadvantaged 5,4	Permanent 50,3

Source: Own elaboration with data from the university admission process (2018) and CRUCH Weighting Register (2012)

Table 3 reports the selected students, that is, the proportion of applicants who became creditors of a vacancy offered in 2018. In general, 2 out of 5 applicants are selected in some program of the available offer (39.4%), proportions that are similar between men and women (38.9% vs 39.9%). The greatest differences are observed due to the type of school and the educational capital at home. 71.9% of applicants from paid private schools are selected, while in public and/or free schools this figure does not exceed 30%. Biases of similar magnitude are observed due to parental educational capital; among the extreme groups of the distribution the differences reach 22.5 percentage points in favor of those with greater educational capital.

In strategic terms, the inclusion of the Ranking was expected to modify the selection trends prior to its implementation, configuring two segments of analytical interest: the *Included* (22.3%) and the *Disadvantaged* (5.4%) by the Ranking. Based on the total selected in 2018, 30.7% are favored by the increase in score as a result of the weighting to the Ranking. On the other hand, of the applicants not selected in 2018, 19.6% would have been under the admission conditions of 2012, that is, they lose with the Ranking.

In disaggregated terms, the largest proportion of those who benefit from the ranking are women (34.9%) and students in public schools (32.5%) and free (32.7%). When considering the ratios, that is, how many students earn for each applicant who loses with the Ranking, the highest index refers to those who attended private schools paid (ratio= 8.6), although it is important to consider that such result is conditioned by the sample size of this conglomerate, which represents only 11.5% of the enrolled, and by its high proportion of selected, which exceeds 70%. Other interest ratios are observed in clusters with high parental educational capital (ratio= 5.7) and among women (ratio= 4.5).

Table 3. Inclusion rates Post Grade Ranking according to demand attributes (N=306,376)

Segments	Sel18	Ranking Impact			Inclusion rate	
		Win	Lose	Ratio	Inclusion net	Relative variation
Female	39,9	34,9	16,5	4,5	23,7	37,1
Male	38,9	26,3	25,3	3,8	20,6	23,9
Public Schools	29,9	32,5	18,9	3,1	20,8	27,9
Public schools	29,5	32,7	18,6	3,1	20,8	28,2
Private schools paid	71,9	27,7	28	8,6	24,7	32,2
Low parental educational capital	34,6	26,8	20,5	2	18,7	21,9
High parental educational capital	57,1	29,9	20,7	5,7	24,6	34,1
General	39,4	30,7	19,6	4,1	22,3	30,4

Note: sel18= selected admission process 2018; the values in column *Inclusion rate* represent the contributions of the Grade Ranking in the admission process taking as a reference the weighting factors of the Pre-Ranking 2012 scenario. Positive or negative sign determines how much more

or less brings the inclusion of the Ranking to the analysis categories. The index of *Net Inclusion* refers to the proportion of exclusively selected candidates in 2018 with respect to the total number of valid applicants in both processes (2018-2012). The *Relative variation* expresses the percentage change of selected between 2012 and 2018. Source: Own elaboration with DEMRE data (2018)

Table 3 also shows the inclusion rates in order to determine the contributions that the Ranking makes to university admission through the Net Inclusion and Relative Variation indices. Regardless of the index used, the greatest gain is observed among female applicants, graduates of privately paid schools and high parental educational capital. Considering exclusively those who were selected in 2018 (the Included), which represent 22.3%, the net inclusion rates transit between 24.7% for the case of graduates of Private Paid establishments up to 18.7% between those with low parental educational capital. For its part, the relative variation figures indicate the impact of the Ranking on selection fees, especially among women (37.1%), graduates of Paid Private Schools (32.2%) and High Parental Educational Capital (34.1%).

Discussion

The Grade Ranking is a key tool for the achievement of the pro-inclusion agenda for higher education. It not only seeks to reduce the correlation bias that UATs had with sociocultural capital attributes, but also to reinforce the assessment that the admission system makes of the school trajectory. In this sense, the results exposed the impact that the incorporation of the Ranking has caused on the weighted scores and their distributions, the selection levels, the typologies of emerging applicants and the inclusion rates, taking as a reference the attributes of the applicants.

Overall, weighted scores improve significantly on the occasion of the Ranking. As was to be expected, the main beneficiaries are those who attended public and/or free schools, groups historically relegated from selective higher education because they could not endorse in the UAT the scholastic performance exhibited in high school.

This improvement in scores is a direct expression, on the one hand, of the greater valuation of the school trajectory and, on the other, of the differentiated alignment strategies that the HEIs have adopted, which vary according to typology and program. As far as university selection systems are concerned, two classic positions coexist: the one that defends the predictive capacity of the selection and homogeneity tests in their application conditions; and the one that recognizes the school trajectory as an indicator of the efforts deployed to learn, even in adverse contexts, while reducing the bias attributed to the selection mechanisms that operate in segregated spaces.

Although controversial, a third perspective of a strategic nature of the institution can be added, consisting of increasing its valuation to the school trajectory in order to improve the attributes of selection, mainly cut scores, gaining social prestige and positioning. Both the increase in the weighted score and the notorious differential that favors the historically worst performing groups PSU, observed in the graph, have their explanation in this institutional strategic positioning, and that is that the Ranking would also be used as tools to bulk up the selective characteristics of the programmatic grid of the HEIs. To the extent that the school trajectory is valued, the weighted score improves, projecting to the public an artificial image regarding the necessary conditions to be part of them, which, linked to the general ideal of greater requirement of selection equal to higher educational quality, makes them more attractive for a growing demand. This perspective raises how profitable inclusion via Ranking is for some HEIs, particularly when their professional offer is nourished by the segments with the lowest UAT performance.

It should also be noted that the low correlation that could be observed between the components of school trajectory and the UATs does not have a homogeneous behavior throughout the system, rather, the imbalances are accentuated in certain types of schools whose students tend to exhibit lower performance in standardized tests. The differences between evaluative policies, common to the segregated Chilean school system, were increased once the Ranking was implemented with the aim of facilitating access to the university for its students. Some schools relaxed their evaluation criteria, encouraging strategies of grade inflation and attenuation of gaps and ranges in the general averages, although later these levels of achievement did not find harmony with the UAT results. Although it has been a recurrent practice, it has manifested itself with greater intensity among schools of subsidized private administration (PIEES, 2014; González and Johnson, 2018).

Regardless of the strategic purpose implemented by the HEIs at the time of weighting the Ranking, since 2013 the university admission processes have experienced an increase in access opportunities for historically more relegated applicants. In light of our data, the incorporation of the Ranking and its effect on weighted averages attenuates the selection biases that harmed women, graduates of public schools and those with lower parental educational capital. Findings that are in tune with what was found by Larroucau, Ríos and Mizala (2015) and Santelices, Horn and Catalán (2015).

As the data report, women register significant increases, in particular the proportion that exceeds 600 weighted points, altering the historical trend exhibited by the UAT with respect to favoring men. Literature links women with various attributes that reinforce the conditions of educability and their levels of curricular achievement, such as attitudes of companionship and collective reinforcement, predisposition towards learning, positive leadership, use of dialogic conflict resolution strategies, among others (Carrasco and Trianes, 2010; Paneiva, Bakker and Rubiales, 2018). Characteristics that favor their school performance with respect to their peers, so a greater assessment of their school trajectory in the admission processes, results in a natural increase in their weighted scores. To this is added the fact that it is women who apply to programs that assign greater preponderance to the NEM and Ranking (Meller and Lara, 2010).

Other significant improvements are seen among students in subsidized public schools and with less parental educational capital. It is not that the implementation of the Ranking eliminates the historical segmentation of the Chilean school system, endorsed in standardized tests such as the UAT, but rather attenuates its gaps, which is why its incorporation makes a contribution to inclusion through the increase in opportunities to gain a quota in the selective programs of the CRUCH. Moreover, along with generating better conditions of equity for admission to higher education, the Ranking would investigate other attributes considered indispensable for academic success in university life, such as persistence in homework, active commitment to learning, development of self-confidence and resilience (Segovia and Manzi, 2018).

The increase in weighted scores had a special impact on improving the selection rates of the groups considered most vulnerable in terms of UAT performance, however, although attenuated, the gaps persist. Women, students in public and free schools are the ones who earn the most and lose the least when measuring the impact of the Ranking. However, this would be a restricted inclusion towards less selective program typologies, so that the greatest alterations and mixurization in the enrollment composition would take place in the training offerings with lower cut-off scores, lower social prestige and limited rates of return (Rodríguez and Padilla, 2016), for example, those linked to the social sciences and humanities. Conversely, more prestigious careers demand higher scores and assessment of UAT components, in particular mathematics and science, in addition to being strongly correlated with the sociocultural and economic attributes of the students who adhere (Meller, 2011).

Although the incorporation of the Ranking generates a restricted inclusion, this does not limit the benefits of this policy in terms of reducing socio-educational segmentation by improving the coverage rates of university higher education among those sectors historically relegated. At a general level, 1 in 5 applicants who took the test in 2018 accessed a vacancy due to the incorporation of the Ranking, while under the conditions of the 2012 admission, they would not have achieved it. This is how we coined the typology of Included to mention this portion of students who are subsidized by the Ranking. In turn, the modification in the weighting factors inevitably entails the appearance of Disadvantaged, applicants who would have been selected if the Pre-Ranking conditions were maintained, although the small proportion of these (5.4%) would account for the adequate adjustment of the inclusion policy. As long as the perceived damages are limited and a smaller proportion is threatened in their comfort zone, the less resistance the inclusive policy will generate.

Among the typologies analyzed, an important conglomerate of students who are selected independently of the calculation model persists. Due to some biases of the SAS, as it prolongs school segmentation and segregation, it can be assumed that most of them, typified as Permanent, correspond to students from social segments historically included in higher education, continuists of family educational capital. Although they have adequate school skills and high levels of curricular achievement, it is no less true that they are part of historically privileged groups, and given the tendency that

UAT has to correlate with class attributes, their options for entry to higher education are in themselves greater (Contreras, Gallegos and Meneses, 2009; Yañez, Vera and Mungarro, 2014).

In contrast to this same segmentation analyzed, the admission system generates a relevant contingent of applicants who are permanently excluded from the selection processes. This group of Marginalized, which in our sample of studies reaches 22% of the total number of valid applicants for both processes, are usually characterized by low levels of school performance, limited parental educational capital and scarce resources available in school, home and / or neighborhood (Zwick, 2012; Larroucau, Ríos and Mizala, 2013).

By definition, a selection system is assisted by the objective of discriminating and hierarchizing between applicants, through the recognition of skills and competencies installed for university performance, which give guarantees of academic success in terms of curricular advancement, retention and timely qualification. The problem, then, lies not in the very application of an inclusion/exclusion mechanism such as UAT, but that its pruning is subject to socioeconomic characteristics instead of investigating educational capacities. Particularly noticeable weakness in school spaces as segmented as the Chilean one, where the school shows profound difficulties to compensate for the educational precariousness of the home and develop talent (Duk and Murillo, 2019). Consequently, the success of the policy of incorporation of the Grade Ranking as a factor of social inclusion and reduction of gaps, will depend on the extent to which the selected and unselected groups begin to mix, so that those who lose (the Marginalized) and those who win (the Permanent) are not always the same.

The reduction of these class biases gives legitimacy to the selection systems, characteristic of modern and hierarchical societies, since it is through the acquisition of advanced human capital that the groups that intervene in the decision-making spaces are formed, so that social peace will be strengthened to the extent that access to this position of power does not derive from an inherited privilege, perceived as unfair. Rather, it should be an expression of personal effort and merit, which can be deployed regardless of the social conditions of privilege (Gil, Frites and Muñoz, 2010).

Finally, the Ranking generates a direct assessment of the school trajectory that affects both students and educational institutions. At the level of the students, to the extent that about 1 in 2 points in the weighting score is defined in the course of secondary education, curricular progress and educational achievement become elements of concern, which would force the student to maintain a sustained commitment throughout high school education. On the other hand, schools would be less pressured in the preparation and training of the PSU, being able to turn to the development of their educational projects and achieve greater curricular coverage by finding a student with better predisposition towards learning. The Ranking generates in students a feeling of greater control over their academic future, as a vertical integration scale that recognizes performance regardless of the type of school and quality of education received.

Consequently, the incorporation of the Ranking as an inclusion strategy to higher education is a double challenge. For the school institution, it implies improving and homogenizing its evaluative policies to a standard that makes them comparable as they seek to be a consistent and valid indicator of the level of achievement achieved by the students in relation to their educational context. On the other hand, at the level of the HEIs there is a need to develop an early pedagogical intervention among integrated students via Ranking, who usually present difficulties to adapt to the requirements and demands of university life, in order to guarantee adequate rates of academic success.

Conclusions

This article provides evidence for the analysis of the impact that the Grade Ranking has had on the university admission processes in Chile in terms of weighted scores, new typologies of applicants and selection and inclusion rates. In general terms, the incorporation of the Ranking of grades to the SAS has improved inclusion rates, being a contribution to its justice and equity. Although it has not eliminated the segmentation gaps according to sociocultural attributes of the applicants, these show a significant reduction.

To the extent that the Ranking is a reflection of the curricular use achieved by the student during secondary education in their particular educational context, its use values attributes linked to the predisposition towards learning, taste for study and persistence in the task. This expands the horizon of expectations of applicants, particularly from vulnerable contexts, since they would perceive greater control over their training projects.

The results of the admission tests, as a reflection of a deeply segmented school system, correlated strongly with the social and cultural attributes of the applicants. However, with the incorporation of the Ranking, a break in this trend is recorded as a result of the higher valuation given to the school trajectory. Its weighting favors to a greater extent the applicants of public and / or free schools, of low parental educational capital and of female sex; groups characterized by socioeconomic vulnerability, scarce household resources and limited support networks.

The Ranking compensates, to a certain extent, for the unfavourable conditions in which learning could be carried out in certain educational contexts. A structural feature of the Chilean school system has been its deep segmentation, so that the levels of achievement in standardized tests such as the PSU, have evidenced an intense relationship with the type of establishment attended. Although it is a controversial issue whether the best scores achieved by private establishments are an expression of higher educational quality or the result of school selection practices by academic attributes, the truth is that historically this type of schools have achieved higher weighted scores, although with the installation of the Ranking these differences are reduced.

The Ranking would not only constitute a good predictor of university academic performance, since it would investigate skills and competencies that do not measure the PSUs (motivation, resilience, predisposition and persistence), but it would also allow the good student who has not been able to translate his school performance in these tests, to enter the selective offer. In addition, it corrects the bias that would produce assigning a greater weighting to the NEM, given the segmented evaluative policies and levels of demand between schools.

Although the contributions of the Ranking increase the scores of applications to the careers, the harmony that the programs show with the inclusion initiative defines the assessment they give to the component of school trajectory. In the new framework of higher-level educational options, the weighting of factors NEM and Ranking draw the line between those who support their predictive capacity on university performance and those who, on the contrary, consider UATs as a valid mechanism of discrimination of skills necessary for the university. These evaluations are also based on strategic components used by HEIs at their discretion according to the nature of the program offered and the profile of the demand that subscribes.

Although there are still gaps to be addressed, the Grade Ranking favors the generation of a virtuous circle whose effects pay tribute to the school institution and society as a whole. At the school level, it opens the possibilities of having students with a better predisposition towards the school challenges imposed by the curriculum, thus improving the conditions for learning and curricular coverage. On the other hand, the selection processes for university admission are legitimized by recognizing and valuing the effort deployed by the applicants. The Ranking democratizes the acquisition of human capital on the basis of merit, but effective inclusion will only be possible to the extent that the deep segmentation and inequality that affects the foundations of the Chilean educational system are remedied.

References

- Bellei, C. (2013). El estudio de la segregación socioeconómica y académica de la educación chilena. *Estudios Pedagógicos*, 39(1), 325-245.
- Bellei, (2018). *La nueva educación pública. Contextos, contenidos y perspectivas de la desmunicipalización*. Santiago de Chile: Talleres de gráfica LOM.
- Brunner, J. (2010). Lenguaje del hogar, capital cultural y escuela. *Revista Pensamiento Educativo*, 46(1), 17-44.
- Carrasco, C., & Trianes, M. V. (2010). Clima social, prosocialidad y violencia como predictores de inadaptación escolar en primaria. *European Journal of Education and Psychology*, 3(2), 229-242.

- Catalán, X., & Santelices, M. V. (2014). Rendimiento académico de estudiantes de distinto nivel socioeconómico en universidades: el caso de la Pontificia Universidad Católica de Chile. *Calidad de la Educación*, 40, 21- 52.
- Chiroleu, A. (2009). La inclusión en la educación superior como política pública: tres experiencias en América Latina. *Revista Iberoamericana de Educación*, 48(5), 1-15.
- Contreras, D., Gallegos, S., & Meneses, F. (2009). Determinantes del desempeño universitario: ¿importa la habilidad relativa? *Revista Calidad en la Educación*, 17-48.
- Council of Rectors of the Universities of Chile (CRUCH). (2012). *Admission process 2013. Definitive offer of careers, vacancies and weightings*. Santiago de Chile: Department of Educational Evaluation, Measurement and Registration (DEMRE)
- Department of Educational Evaluation, Measurement and Registration (DEMRE) (2015). *Statistical compendium admission process year 2015*. Santiago de Chile: Department of Educational Evaluation, Measurement and Registration (DEMRE)
- Duk, C., & Murillo, F. (2019). Segregación Escolar y Meritocracia. *Revista Latinoamericana de Educación Inclusiva*, 13(1), 11-13.
- Faúndez, R., Labarca, J., Cornejo, M., Villarroel, M., & Gil, J. (2017). Ranking 850, transición a la educación terciaria de estudiantes con desempeño educativo superior y puntaje PSU insuficiente. *Pensamiento Educativo. Revista de Investigación Educativa Latinoamericana*, 54(1), 1-11.
- Gil, F., Frites, C., & Muñoz, N. (2010). La incorporación del ranking de notas en el sistema de admisión universitaria. In C. Román (Ed.), *Contexto, experiencias e investigaciones sobre los Programas Propedéuticos en Chile* (pp. 29-51). Santiago de Chile: UCSH - CONICYT.
- Gil, F., Paredes, R., & Sánchez, I. (2013). El ranking de las notas: inclusión con excelencia. *UC Center for Public Policy*.
- González, A., & Dupriez, V. (2017). Acceso a las universidades selectivas en Chile: ¿pueden las estrategias institucionales de los establecimientos secundarios atenuar el peso del capital cultural? *Revista Complutense de Educación*, 28(3), 947-964.
- Gonzalez, F., & Johnson, E. (2018). University inclusion policies and strategic behavior in secondary education. *Estudios Públicos*(149), 41-73.
- Grau, M. (2015). *Análisis de la capacidad del ranking de notas para predecir el resultado académico de los estudiantes de la FCFM. (Unpublished master's thesis)*. Santiago de Chile: Universidad de Chile.
- Koljatic, M., & Silva, M. (2012). *Acceso a la información y sistemas de medición en educación en Chile: El caso de las pruebas de admisión*. Fundación Pro Acceso.
- Larroucau, T. (2014). *Ranking de Notas Proceso de Admisión 2014*. Santiago: CRUCH.
- Larroucau, T., Rios, I., & Mizala, A. (2013). *Efectos de la incorporación del Ranking de Notas en la selección universitaria*. Santiago: DEMRE.
- Larroucau, T., Rios, I., & Mizala, A. (2015). Efecto de la incorporación del ranking de notas en el proceso de admisión a las universidades chilenas. *Pensamiento Educativo*, 52(2), 95-118.
- Madero, C., & Madero, I. (2012). Elección Escolar y Selección Estudiantil en el Sistema Escolar Chileno. *Revista Mexicana de Investigación Educativa*, 17(55), 1267-1295.
- Meller, P. (2011). *Universitarios, ¡El problema no es el lucro, es el mercado!* Santiago de Chile: Uqbar Editores. Meller, P., & Lara, B. (2010). *Carreras universitarias: rentabilidad, selectividad y discriminación*. Uqbar.
- Murillo, J., & Román, M. (2011). ¿La Escuela o la Cuna? Evidencias sobre su aportación al rendimiento de los estudiantes de América Latina. Estudio multinivel sobre la estimación de los efectos escolares.

- Revista Profesorado*, 15(3), 1-24. Retrieved from <https://digibug.ugr.es/bitstream/handle/10481/19169/rev153ART3.pdf?sequence=1&isAllowed=y>
- Paneiva, P., Bakker, L., & Rubiales, J. (2018). Clima áulico. Características socio-emocionales del contexto de enseñanza y aprendizaje. *Educación y Ciencia*, 7(49), 55-64.
- PIEES. (2014). *Programa de Investigaciones en Equidad en Educación Superior (PIEES)*. Retrieved from <http://pro-gramapiees.blogspot.com/2014/>
- Rodríguez, C., & Padilla, G. (2016). Trayectoria Escolar y Ranking: valoraciones y estrategias institucionales en el nuevo escenario de selección universitaria. *Estudios Pedagógicos*, 42(3), 313-326.
- Rodríguez, C., & Padilla, G. (2016). Trayectoria Escolar y selección universitaria: comportamiento del ranking como factor de inclusión a la educación superior. *Sophia*, 12(2), 195-206.
- Rodríguez, G., & Castillo, V. (2015). Nivel de logro PSU: Lo que devela el puntaje corregido en las Pruebas de Admisión Universitaria en Chile. *Propuesta Educativa*(44), 89-100. Retrieved from <https://www.redalyc.org/pdf/4030/403044816010.pdf>
- Santelices, M., Horn, C., & Catalán, X. (2015). *Consideraciones de equidad en la admisión universitaria a través del ranking de educación media: teorías de acción, implementación y resultados*. Santiago de Chile: Fondo de Investigación y Desarrollo en Educación – FONIDE.
- Segovia, N., & Manzi, J. (2018). La validez predictiva del Ranking de notas. El rendimiento académico en los dos primeros años de universidad. *Cuadernos de Inclusión en Educación Superior*, 1, 46-59.
- Sistema de Educación Superior (SIES). (2016). *Informe Retención de 1er año de Pregrado Cohortes 2011-2015*. Servicio de Información de Educación Superior. Santiago de Chile: Ministry of Education.
- Single Admission System (SUA). (2014). *Ranking de Notas Proceso de Admisión 2014*. Santiago de Chile: Single Admission System.
- UNESCO. (09 of 04 of 2013). *Press service*. Obtained from University Leaders and Director of the UNESCO Chair of Inclusion in Higher Education question the paradigm of the UAT for deepening social segregation: http://www.unesco.org/new/es/media-services/single-view/news/university_leaders_and_director_of_the_unesco_chair_on_inclu/
- Valenzuela, J., Bellei, C., & Ríos, D. (2014). Socioeconomic school segregation in a market-oriented educational system. The case of Chile. *Journal of Education Policy*, 29(2), 217-241.
- Yañez, A., Vera, J., & Mungarro, J. (2014). El proceso de admisión de las escuelas normales y los antecedentes socioeconómicos como predictores del rendimiento académico. *Revista Intercontinental de Psicología y Educación*, 16(2), 111-129. Retrieved from <https://www.redalyc.org/pdf/802/80231541007.pdf>
- Zwick, R. (2012). The role of admissions test scores, socioeconomic status, and high school grades in predicting college achievement. *Pensamiento Educativo*, 49(2), 23-30.